

## **Undersiding Flashing Receiver**

### **CROSS-REFERENCE TO RELATED APPLICATIONS**

This application claims priority from U.S. Provisional Patent Application No.

5 60/437,606 filed January 2, 2003.

### **BACKGROUND OF THE INVENTION**

The present invention relates generally to roof construction and repair, and in particular the present invention relates to an undersiding flashing receiver.

10 The problem of how to seal and make waterproof or water resistant vertical and horizontal building surfaces is as old as the building trades. In its most rudimentary fashions, this problem was solved by the blending and sealing of the vertical and horizontal surfaces with sheet metal such as sheet copper, aluminum or lead. This sheet metal is often referred to as flashing. The sealing of the flashing to  
15 the respective surfaces was effected with a mastic such as tar. This method of sealing building surfaces is still commonly used.

In the past few decades, a new form of building renewal has come into wide spread use namely the trade of applying interlocking siding to the vertical surfaces of buildings in order to give these surfaces a new appearance. In this regard, the  
20 application of interlocking panels of vinyl and aluminum siding to older structures has become quite common. Because this siding is often applied to older structures, two problems often arise.

First, the roofing on the structure is often replaced at intervals of fifteen to twenty-five years. Additionally, damage as a result of high wind, hail, carpenter ants, termites, fire, improper ventilation, sun, shingle manufacturing defects, falling trees, ice dams, etc. may necessitate the repair or replacement of the roof. With a

5 structure's life expectancy of one hundred years, multiple applications of roofing are possible. When repairing or replacing the roof, it is usually necessary to replace all flashing. Current methods and devices do not provide a roof-siding transition such that the flashing may easily be replaced.

The second problem arises when siding installers place a nail through the

10 lower end of the new siding and the roof-wall transition flashing. This greatly complicates the repair or replacement of the flashing or roofing material because the siding must be removed to replace the flashing. The replacement of the flashing is further complicated by multiple layers of siding, as in the case of new siding installed directly over existing exterior wall coverings. Two layers of siding nailed to the

15 flashing and the wall prevents repair or replacement of the flashing or roofing material in accordance with current Asphalt Roofing Manufacturers' Association Standards or the Standards of the National Association of Roofing Contractors.

Moreover, it has recently been recognized that the bottom of sidings adjacent to roof areas should be maintained at a minimum distance above the roof covering to

20 prevent moisture from seeping into and rotting the lower wall boards. Today, many siding installers, out of carelessness or ignorance, set a siding "J" channel directly on

the roofing material or at an inadequate height above the roof. Placing the "J" channel directly on the roof does not provide the minimum distance required by most siding manufacturers nor does it allow for future repair or replacement of the flashing. This is an adverse situation for the customer because now the top layer of  
5 siding has to be removed so that new flashing can be installed. This adds considerable costs to the job of roof repair or replacement.

The present invention is directed to overcoming one or more of the problems set forth above.

## BRIEF SUMMARY OF THE INVENTION

It is a principal aspect of the present invention to supply and maintain a void for receiving flashing material at a desired location to correctly locate wall coverings, such as siding. The application of this void will allow the immediate and future  
5 repair or replacement of the flashing or roofing material without removal of the wall covering. It will ultimately provide a benefit to the customer by reducing the costs to repair or replace roofing materials over the life of the building.

It is another aspect of the present invention to provide for quick installation of new flashing due to a back flange of the flashing being set directly on the roof  
10 sheathing. This automatically sets a front flange at the correct position for properly locating the siding. A bottom of the front flange is set so that the wall covering end runs parallel with it. Depending on the type of wall covering used or its location, use of a plain receiver, "J" channel receiver, or a starter strip receiver may be necessary.

Yet another aspect of the present invention is to provide an upper area of the  
15 void with a locating feature that stops the front flange from being nailed back tight; thus ensuring that the undersiding flashing receiver remains open to receive flashing.

Another aspect of the present invention is to provide an undersiding flashing receiver made from standard siding materials and color matched to the most common shades of contemporary siding colors.

The above aspects are accomplished by an undersiding flashing receiver comprising a thin gauge material that is shaped to properly locate siding and receive the flashing.

The above aspects are merely illustrative and should not be construed as all-  
5 inclusive; nor should they be construed as limiting the scope of the invention.

# BRIEF DESCRIPTION OF THE DRAWINGS

Reference is now made to the accompanying drawings which illustrate the best known mode for carrying out the invention:

- Fig. 1 is a side view of a first embodiment of an undersiding flashing receiver;
- 5 Fig. 2 is a front view of the embodiment shown in Fig. 1;
- Fig. 3 is a perspective view of the first embodiment illustrating its use in a roof-wall transition;
- Fig. 4 is a cross-sectional view generally taken along line 3-3 in Fig. 3;
- Fig. 5 is a side view illustrating a second embodiment of the undersiding
- 10 flashing receiver;
- Fig. 6 is a front view of the embodiment shown in Fig. 5;
- Fig. 7 is a side view illustrating a third embodiment of the undersiding flashing receiver;
- Fig. 8 is a front view of the embodiment shown in Fig. 7;
- 15 Fig. 9 is a side view illustrating a fourth embodiment of the undersiding flashing receiver;
- Fig. 10 is a front view of the embodiment shown in Fig. 9;
- Fig. 11 is a side view illustrating a fifth embodiment of the undersiding flashing receiver;
- 20 Fig. 12 is a front view of the embodiment shown in Fig. 11;
- Fig. 13 is a side view illustrating a sixth embodiment of the undersiding flashing receiver; and
- Fig. 14 is a front view of the embodiment shown in Fig. 13.

## DETAILED DESCRIPTION OF THE INVENTION

Referring now to the drawings, and initially to Figs. 1 and 2, an undersiding flashing receiver is generally indicated by numeral 10. The undersiding flashing receiver 10 includes a thin gauge material 12 which may be bent or extruded into the desired shape. The thin gauge material 12 is preferably extruded vinyl but can also be made from aluminum, galvanized steel, or copper. If the undersiding flashing receiver 10 is to be made from metal, sheets or coilstock may be used.

The undersiding flashing receiver 10 also includes a first leg 11, a second leg 17, and an intermediate member 14. The intermediate member 14 is also referred to as a spacer. The spacer 14 is made from resilient material, such as foam or rubber, and provides a gap 16 for receiving standard flashing. The depicted embodiment of the undersiding flashing receiver 10 further includes a "J" channel 18. The "J" channel 18 forms a gutter 13 for receiving exterior wall coverings, such as siding. The "J" channel 18 is at a height H above a bottom 15 of the undersiding flashing receiver 10 such that a standard flashing may be easily inserted or removed after the undersiding flashing receiver 10 is installed. The "J" channel 18 must also overlap the top portion of the standard flashing to prevent water from seeping behind the standard flashing. The overlap should be no less than one-half inch (13 millimeters). The use of the "J" channel 18 properly locates a wall covering, such as siding, at a vertical distance above the flashing and/or roof.

Referring now to Figs. 3 and 4, there is shown one possible use of the first embodiment. In this application, the undersiding flashing receiver 10 is provided as part of the roof-wall transition and mounted to a wall 38. The undersiding flashing receiver 10 may be mounted using various fastening devices, such as nails or screws.

5 A standard flashing 32 is inserted into the undersiding flashing receiver 10 and is secured to a roof 33. Roofing material 24 covers the roof 33 and a portion of the standard flashing 32. The undersiding flashing receiver 10 also receives a lower portion of siding 26. The undersiding flashing receiver 10 properly spaces the siding 26 above the roof 33. The siding 26 covers the wall 38. In this manner, the siding 26

10 is properly spaced above the roof and the flashing may be easily removed at some later date in the event of roof repair or replacement.

In Figs. 5 and 6, a second embodiment of the undersiding flashing receiver is generally indicated by numeral 40. The undersiding flashing receiver 40 includes a thin gauge material 42, a first leg 43, a second leg 45, and an intermediate member

15 44. The undersiding flashing receiver 40 also includes slots 46. The slots 46 may be used to operatively connect a starter strip, commonly known in the art and therefore not described in more detail, to the undersiding flashing receiver 40. The slots 46 may also be nail slots for securing the undersiding flashing receiver 40. The combination of the undersiding flashing receiver 40 and the starter strip may be used

20 for applications where the siding and the roof are not perpendicular to one another but are at an obtuse angle. An example of this situation may be the transition



between a porch roof and vertical siding. The slots 46 may be omitted in some instances, such as when a starter strip is not necessary for the application.

Figs. 7 and 8 illustrate a third embodiment of the undersiding flashing receiver, generally indicated by numeral 50. The undersiding flashing receiver  
5 includes a first leg 53 and a second leg 55. In the depicted embodiment, the undersiding flashing receiver 50 includes a starter strip 56 for the installation of siding. The use of this embodiment eliminates the need for additional components when transitioning from the roof to the siding in an application where the roof and the siding are substantially in the same plane or at an obtuse angle to each other. The  
10 undersiding flashing receiver 50 also includes a thin gauge material 52 and an intermediate member 54.

A fourth embodiment of the undersiding flashing receiver, generally indicated by numeral 60, is shown in Figs. 9 and 10. The undersiding flashing receiver 60 may include nail slots 66 for the purpose of installation. The undersiding flashing receiver  
15 60 is similar to the first embodiment in that it includes a "J" channel 68 forming a gutter 63 for receiving exterior wall coverings, such as siding. The undersiding flashing receiver 60 includes a first leg 62, a second leg 67, and an intermediate member 61.

As seen in Fig. 9, the undersiding flashing receiver 60 has an upper surface 64  
20 and a lower surface 65. The upper surface 64 is used to attach the undersiding flashing receiver 60 to a substantially vertical member, such as a wall. The lower

surface 65 is shown offset from the upper surface 64 for the purpose of allowing a flashing to be located between the lower surface 65 and the substantially vertical member. While a parallel offset is shown, other transitions between upper surface 64 and lower surface 65 may be used. What is important is that lower surface 65 is  
5 located at a sufficient distance away from the mounting surface (i.e. upper surface) 64 such that a flashing can be inserted between the lower surface 65 and a substantially vertical member, such as a wall.

Figs. 11-14 illustrate two additional embodiments. In Figs. 11 and 12, an undersiding flashing receiver 70 includes an extended tip 72. Alternatively, a wall  
10 covering, such as siding, may be directly attached to the extended tip 72. In some embodiments the undersiding flashing receiver 70 includes a starter strip, similar to the starter strip 56 shown in Fig. 7, attached to the extended tip 72. The undersiding flashing receiver 70 may include nail slots 76 for installation. The undersiding flashing receiver 70 also includes a first leg 71, a second leg 73, and an intermediate  
15 member 75.

An undersiding flashing receiver 80 shown in Figs. 13 and 14 is similar to the embodiment shown in Fig. 9 except that it does not include a “J” channel. The undersiding flashing receiver 80 has an upper surface 84 and a lower surface 85. The lower surface 85 is shown offset from the upper surface 84 for the purpose of  
20 allowing a flashing to be located between the lower surface 85 and the substantially vertical member, such as a wall. While a parallel offset is shown, other transitions

between upper surface 84 and lower surface 85 may be used. What is important is that lower surface 85 is located at a sufficient distance away from the mounting surface (i.e. upper surface) 84 such that a flashing can be inserted between the lower surface 85 and a substantially vertical member, such as a wall. The undersiding  
5 flashing receiver 80 may include nail slots 86 for installation. The undersiding flashing receiver 80 also includes a first leg 82, a second leg 83, and an intermediate member 87.

A method of using an undersiding flashing receiver includes locating the undersiding flashing receiver along lower boards of a wall adjacent to a roof,  
10 securing the undersiding flashing receiver to the wall, inserting a flashing into the undersiding flashing receiver, securing the flashing to the roof, at least partially covering the roof and flashing with roofing material, and operatively connecting exterior wall coverings to the undersiding flashing receiver.

Other aspects, objects and advantages of the present invention can be obtained  
15 from a study of the drawings, the disclosure and the accompanying claim. The invention in its broader aspects is not limited to the specific steps and apparatus shown and described but departures may be made therefrom within the scope of the accompanying claim without departing from the principles of the invention and without sacrificing its chief advantages. For example, while the above illustrates the  
20 use of an undersiding flashing receiver in home construction, it can equally be adapted for commercial building construction.